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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army										Date: May 2017		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0310349A I Win-T Increment 2 - Initial Networking							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	3.649	4.867	4.723	-	4.723	5.833	5.804	13.535	13.952	0.000	52.363
EE7: WIN-T Increment 2 - Initial Networking	-	3.649	4.867	4.723	-	4.723	5.833	5.804	13.535	13.952	0.000	52.363

A. Mission Description and Budget Item Justification

Warfighter Information Network - Tactical Increment 2 (WIN-T Inc 2) provides the Army with On-The-Move (OTM) networking capability. The WIN-T Inc 2 network retains capabilities delivered by WIN-T Inc 1 and by leveraging proven Government and commercial technologies, adds greater network throughput and automated network management to optimize planning (to include spectrum use), initialization, monitoring and troubleshooting. WIN-T Inc 2 employs Satellite Communications OTM to extend the network in maneuver Brigade Combat Teams to Company-level through FY2018. Using equipment mounted on combat platforms, WIN-T Inc 2 delivers a mobile capability that reduces reliance on fixed infrastructure and allows key leaders to move on the battlefield while retaining situational awareness and mission command capabilities. Using the Highband Networking Radio, with the Highband Networking Waveform and high performance antennas, the WIN-T Inc 2 Line-of-Sight network offers an adaptive 30-Megabit per second aggregate throughput to key leaders in their Command Post or in their vehicle. The WIN-T Inc 2 network is self-forming, which means it automatically creates transmission paths based on terrain and environmental conditions; and self-healing, meaning that transmission paths will automatically re-route traffic to complete network transactions and calls even if one or more nodes break down or lose connectivity. This capability offers greater network reliability and better end-to-end connectivity than traditional point-to-point networks. WIN-T Inc 2 introduces the network management capability needed to keep mobile and dispersed forces networked through automated planning, initialization, monitoring, and troubleshooting. Finally, WIN-T Inc 2 adopts "Colorless Core" technology that encrypts both classified and unclassified user information in the network and minimizes the number of users on the "core" of the network. The Colorless Core allows commanders to utilize the tactical network without fear of the enemy intercepting information. Colorless Core is a technical insertion in the WIN-T Inc 1b network which enables information sharing between WIN-T Inc 1b and WIN-T Inc 2.

Inc 3 developed NetOps software and NetCentric Waveform (NCW) updates will be inserted into Inc 2 equipped units.

FY18 funds support development efforts for Technical Insertions, support Operational Testing (Joint Warfighting Assessment 18), and support Next Generation Point of Presence (PoP) and Soldier Network Extension (SNE) efforts.

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development		PE 0310349A / Win-T Increment 2 - Initial Networking			
B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	3.800	0.000	0.000	-	0.000
Current President's Budget	3.649	4.867	4.723	-	4.723
Total Adjustments	-0.151	4.867	4.723	-	4.723
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.151	-			
• Adjustments to Budget Years	0.000	4.867	4.723	-	4.723
Change Summary Explanation					
FY18 funds support development efforts for Technical Insertions, support Operational Testing (Joint Warfighting Assessment 18), and support Next Generation Point of Presence (PoP) and Soldier Network Extension (SNE) efforts.					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Army										Date: May 2017		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0310349A / Win-T Increment 2 - Initial Networking				Project (Number/Name) EE7 / WIN-T Increment 2 - Initial Networking			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
EE7: WIN-T Increment 2 - Initial Networking	-	3.649	4.867	4.723	-	4.723	5.833	5.804	13.535	13.952	0.000	52.363
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Warfighter Information Network - Tactical Increment 2 (WIN-T Inc 2) provides the Army with On-The-Move (OTM) networking capability. The WIN-T Inc 2 network retains capabilities delivered by WIN-T Inc 1 and by leveraging proven Government and commercial technologies, adds greater network throughput and automated network management to optimize planning (to include spectrum use), initialization, monitoring and troubleshooting. WIN-T Inc 2 employs Satellite Communications OTM to extend the network in maneuver Brigade Combat Teams to Company-level through FY2018. Using equipment mounted on combat platforms, WIN-T Inc 2 delivers a mobile capability that reduces reliance on fixed infrastructure and allows key leaders to move on the battlefield while retaining situational awareness and mission command capabilities. Using the Highband Networking Radio, with the Highband Networking Waveform and high performance antennas, the WIN-T Inc 2 Line-of-Sight network offers an adaptive 30-Megabit per second aggregate throughput to key leaders in their Command Post or in their vehicle. The WIN-T Inc 2 network is self-forming, which means it automatically creates transmission paths based on terrain and environmental conditions; and self-healing, meaning that transmission paths will automatically re-route traffic to complete network transactions and calls even if one or more nodes break down or lose connectivity. This capability offers greater network reliability and better end-to-end connectivity than traditional point-to-point networks. WIN-T Inc 2 introduces the network management capability needed to keep mobile and dispersed forces networked through automated planning, initialization, monitoring, and troubleshooting. Finally, WIN-T Inc 2 adopts "Colorless Core" technology that encrypts both classified and unclassified user information in the network and minimizes the number of users on the "core" of the network. The Colorless Core allows commanders to utilize the tactical network without fear of the enemy intercepting information. Colorless Core is a technical insertion in the WIN-T Inc 1b network which enables information sharing between WIN-T Inc 1b and WIN-T Inc 2.

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FY18 funds support development efforts for Technical Insertions, support Operational Testing (JWA 18), and support Next Gen PoP and SNE efforts.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2016	FY 2017	FY 2018
Title: Product Development	-	3.970	2.938
Description: Product Development			
FY 2017 Plans: Development efforts for the Distributed Embedded SATCOM On-The-Move (OTM) Standard Terminal Architecture (DESSTA) for ABCTs.			
FY 2018 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016	FY 2017	FY 2018	
FY18 funds development efforts for Technical Insertions.											
Title: Test and Evaluation								3.042	0.473	1.354	
Description: Test and Evaluation											
FY 2016 Accomplishments: FY16 funds supported the Tactical Communications Node - Lite (TCN-L) and Network Operations and Security Center - Lite (NOSC-L) Safety Test and Performance Validation.											
FY 2017 Plans: FY17 funds support Operational Testing (CIE 17.2) and continues tech insertion of NetOps Build 5 and upgrade to NetCentric Waveform (NCW) 10.x.											
FY 2018 Plans: FY18 funds support Operational Testing (JWA 18) and support Next Gen PoP and SNE efforts.											
Title: Management Services								0.607	0.424	0.431	
Description: Provides system engineering and program management support											
FY 2016 Accomplishments: Continued system engineering and program management support.											
FY 2017 Plans: Continues system engineering and program management support.											
FY 2018 Plans: Continues system engineering and program management support.											
Accomplishments/Planned Programs Subtotals								3.649	4.867	4.723	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• WIN-T Inc 2: WIN-T Inc 2 Procurement	416.463	291.933	420.492	-	420.492	404.632	415.375	362.540	408.344	Continuing	Continuing
• WINT Inc 2 OCO: WIN-T Inc 2 OCO	-	1.288	-	-	-	-	-	-	-	0	1.288

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C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2018</u>	<u>FY 2018</u>	<u>FY 2018</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Complete</u>	<u>Total Cost</u>
• Inc 2 Spares: WIN-T Inc 2 Procurement Spares	39.532	19.808	23.935	-	23.935	23.932	23.930	25.419	30.718	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
<p>The current Initial Production contract was awarded in 2010 for procurement of Low Rate Initial Production Lots. Lots 1-5a were procured prior to the Full Rate Production (FRP) decision review. Approval for full rate production was granted at the Defense Acquisition Board on 11 May 2015. Lots 5b/6 were the first full rate production lots procured. Lot 7 was procured in 2Q FY 2016. Lot 8 will be procured in 4Q FY2017 and is expected to be the final lot buy under the current contract. The PMO is negotiating a Follow-On Production Contract through alpha-contracting sessions. This Follow-On Production Contract will be used for Lots 9, 10 and 11 with additional follow-on contracts awarded to support the remaining program procurement requirements.</p> <p>Inc 3 developed NetOps software and NetCentric Waveform was tested at Network Integration Evaluation (NIE) 16.2 event and will be inserted into Inc 2 equipped units.</p>											
E. Performance Metrics											
N/A											